DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-002583
Date Inspected: 25-Apr-2008

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1400
OSM Departure Time: 2330
Location: Shanghai, China

CWI Name:	Hu Wei Qing			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG/Tower

Summary of Items Observed:

The Caltrans Quality Assurance (QA) Inspector Roscoe Dixon was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG),and Tower.

New Tower Assembly Shop:

The QA Inspector observed welding operator Yang Lanying, ID 045265 performing the Submerged Arc Welding Process (SAW) utilizing WPS) WPS-B-T-2221-B-U3L-S-1 in the 1G (Groove) position to weld fill and cap passes for a complete joint penetration (CJP) weld joint for Bottom plate BP19A+BP20A.

The QA Inspector visually verified a single electrode was being utilized for the fill weld passes, and the filler metal was JW-3 with a diameter of 4.8 millimeters.

The Flux was verified as JF-B, the base material listed on the (WPS) as grade 345. The QA Inspector observed and noted that during the welding operation the ZPMC welding operators would before welding over previous deposited weld pass utilized the proper cleaning method to remove slag prior to resuming the welding operation.

The QA Inspector observed that during the shift ZPMC CWI, Chen Chci Ming and ZPMC CAWI Inspectors monitoring the electrical parameters, travel speed and weld interpass temperatures at this station.

The cap pass for this weld joint completed during the QA Inspector's shift and generally appeared to conform with the above listed WPS and to the contract specifications.

Bay 3 OBG:

The QA Inspector randomly observed ZPMC Welding Operators Li Hong ID 062447, Li Zhao Qian ID 048810, and Li meng ID 054460 utilizing the FCAW Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2132-3 in the 2F (Horizontal) position utilizing the Automatic Welding Carriage, to weld various stiffeners for Side Plate material Sub-Assemblies.

The QA Inspector made a random visual verification of the welding in progress on the following weld joints: SP753-001-003 and 002, being welded by operator Li Hong, SP753-001-005 and 006, being welded by operator Li Zhao Qian, and SP753-001-009 and 010.

The QA Inspector randomly observed ZPMC CWI Wu Ming Kai, and various CAWI Inspectors monitoring weld parameters.

The QA Inspector also randomly verified welding parameters during the welding being performed and they appeared to comply with the above listed Welding Procedure Specifications (WPS), and the contract requirements

New Tower Shop Bay 1:

The QA Inspector randomly observed ZPMC Welding Operator Yun Chuanjin ID 0503060 utilizing the Submerged Arc Welding (SAW Process with ZPMC Weld Procedure Specifications (WPS) B-T-2321-B-P3-S and (WPS) WPS-B-T-2221-BL2-C-S-1 to weld the fill and cap passes for skin plate to skin plate weld joint identified by ZPMC as weld joint SSD1-SA173 K/K-14A JK-1.8A 3.7A.

This joint is a groove butt joint that is prepped for both a partial joint penetration (PJP) joint, and a complete joint penetration (CJP) weld. The weld transitions from 80mm thick plate on one side of the weld joint and the plate material on the other side of the weld joint is 60mm thick.

The QA Inspector visually verified a single electrode was being utilized for the filler passes and the filler metal being used was JW-3 with a diameter of 4.8 millimeters. The members are identified as P128+P126 SA173, and the material grade is identified as 345+345.

The QA Inspector observed that during the shift ZPMC CWI, Xu Le Feng and ZPMC CAWI Inspectors were monitoring the electrical parameters, travel speed and weld interpass temperatures at this welding station.

The work being performed was in progress generally appeared to conform to contract specifications.
For more detail see photographs shown below:

WELDING INSPECTION REPORT

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Summary of Conversations:

As noted within the report shown above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Dixon,Roscoe	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer